



The 19th FINA World Championships 2022
Fukuoka

Radio Frequency Application Guide

Version 2

June 2022

The 19th FINA World Championships 2022 Fukuoka

Organizing Committee

Revision History

Version	Date	Description
1.0	September 2021	First issue
2.0	June 2022	Second issue: due to new dates

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1. Introduction

1.1 Use of radio equipment

The 20th FINA World Championships 2022 Fukuoka and Masters Championships ("FINA World Championships 2022 Fukuoka") will be held from July 14th to July 30th, 2023 and August 2nd to August 11th, 2023, respectively.

The FINA World Championships 2022 Fukuoka Organizing Committee ("Local Organizing Committee") will coordinate the licensing procedures and the operation of radio equipment to ensure that users can use radio equipment efficiently and without interference during the FINA World Championships 2022 Fukuoka.

1.2 Purpose

The purpose of this Radio Frequency Application Guide is to disseminate detailed information on the radio frequency application procedures required for the use of radio equipment in the venues during the FINA World Championships 2022 Fukuoka.

1.3 Authorization procedure for radio equipment

The entire process from radio frequency application to the approval of usage of radio equipment will be covered later in this Radio Frequency Application Guide.

In advance of actual use of the radio equipment in Japan, it is required to have an inspection organized by the Local Organizing Committee and receive an "Authorization Sticker".

Even if you have radio equipment that may already have a Japanese radio license, please go through this process for confirmation by the Local Organizing Committee.

2. Radio Frequency Application procedure

2.1. How to apply

Fill out the Radio Frequency Application Form ('application form') and send it to the Local Organizing Committee by e-mail.

The applicant's information required for the radio frequency application is shown in the 'Appendix' of this guide.

The application form can be downloaded from the official website of the FINA World Championships 2022 Fukuoka.

After entering all necessary information, please send your application form to the Local Organizing Committee via below address:

- **Send the application form to: radio@2022fukuoka.com**

2.2. Radio equipment that require application procedures

All radio equipment that transmit radio waves require application procedures that must be filled out and submitted to the Local Organizing Committee. (excluding mobile phones, etc. provided by Japanese telecommunications carriers. (Section 2.6))

The application form corresponds to the type of radio equipment that will be applied (see Appendix 2).

If your radio equipment needs to obtain a new Japanese radio license for use in Japan, you will be charged an application fee (see Appendix 5).

Radio equipment that have not been authorized by the Local Organizing Committee cannot be brought into the venues. In addition, in the event of any interference with other radio frequencies, the concerned radio equipment shall be identified and removed from the venue. A penalty may be imposed according to the laws and regulations in Japan.

2.3. Basic rules for radio equipment use in Japan

In principal, in order to use any radio equipment in Japan, a license must be obtained from the Ministry of Internal Affairs and Communications.

The following items will be examined.

- ✓ Conformity of the technical regulations specified in the Japanese Radio Law.
- ✓ Feasibility of frequencies assignment.
- ✓ Conformity with the Ministry Ordinance for the Essential Standards for establishing radio stations.

Some wireless systems used in overseas may not be licensed because the frequencies used and functions do not meet Japanese regulations. (Example: DECT, Wi-Fi)

There is a Technical Conformity Certification System that certifies compliance with the technical regulations specified in the Japanese Radio Law, and certain radio equipment that has received this certification may only require a simple licensing procedure or the license itself may be unnecessary.

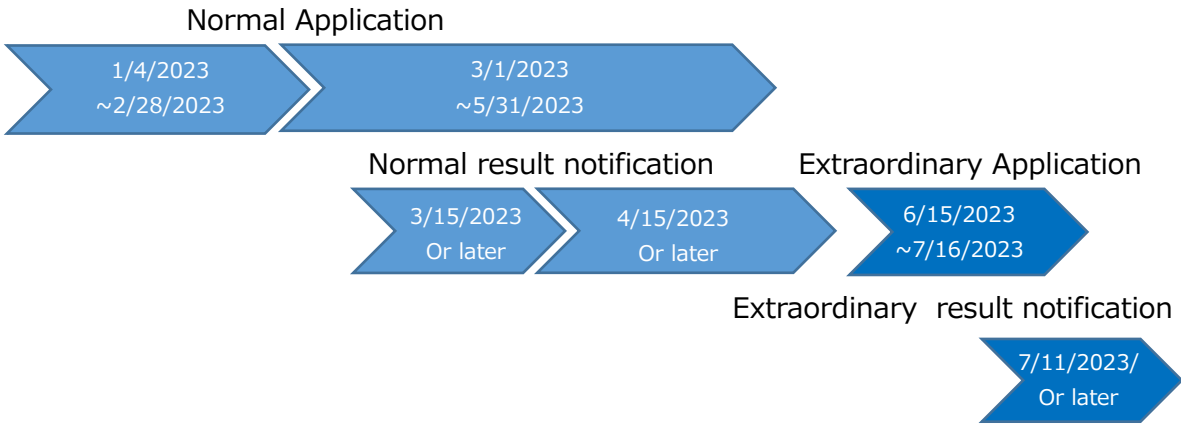
The Technical Conformity Mark (㊦) is a mark that certifies the radio equipment conforms to the technical regulations specified in the Japanese Radio Law, and is attached to each individual radio equipment.

Radio equipment without the Technical Conformity Mark (㊦) should be applied during the Normal Application period as it is not the subject to the simple license procedure.

If the radio equipment conforms to the technical regulations specified by the Japanese Radio Law (Example : frequency, transmit power, occupied frequency bandwidth) and the frequency can be assigned, then a new license can be obtained. (Details such as specifications and settings may be confirmed).


Please also refer to Appendix 6.Q & A Q24-Q26 for the technical regulations and the Technical Conformity Mark (㊦).

2.4. Radio frequency application and usage approval timeline



Notification of results for local application

Application Type	Application Period	Result Notification	Note
Normal Application	Jan. 4 – Feb. 28, 2023	After Mar. 15, 2023	It is more likely that you will assigned your requested frequency.
	Mar. 1, – May 31, 2023	After Apr. 15, 2023	It is less likely that you will be assigned your requested frequency.

Extraordinary Application	Jun. 15 – Jul. 16, 2023	After Jul. 11, 2023	<p>Only radio equipment with the Technical Conformity Mark () can apply.</p> <p>There is no guarantee that you will be able to use a requested frequency, and if the radio equipment you have applied for is not compatible with the allocated frequency, you will not be able to bring in your radio equipment to venues.</p>
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2.5. Result notification / confirmation

When frequency assignment is complete and provisional approval has been given, you will be notified the result of frequency assignment (provisional approval of the frequency) by e-mail. When you receive the email, please open the attached file and check the result of the provisional approval.

2.6. If you already have a Japanese radio license

Even if you have an existing Japanese radio license, the approval of the Local Organizing Committee is still required for usage of your radio equipment in and around the venues of the FINA World Championships 2022 Fukuoka.

Please fill out the application form and apply for frequency use.

2.7. Radio equipment that do not require approval procedures

All radio equipment, regardless of whether it is licensed in Japan or outside Japan, must be approved by the Local Organizing Committee, but the following radio equipment are exempted.

- Mobile phones with service provided by Japanese telecommunications carriers
- Mobile phones that conform to the international standards equivalent to the technical regulations specified in the Japanese Radio Law, and are used through international roaming.
- Radio equipment (those that use radio frequencies in the 2.4 GHz, 5.2 GHz, 5.3 GHz and 5.6 GHz bands) of a low-power data communications system that conform to the technical regulations specified in the Japanese Radio Law, and that are used within a period not exceeding 90 days after entry into Japan (e.g., those carrying FCC certification for USA or CE marks for Europe and displaying some kind of mark that indicates certification for Wi-Fi Alliance or Bluetooth SIG (in other words, devices carrying approved logos)).

- Smartphones, tablets and other portable PCs can be connected to public wireless LAN spots and use. Note that tethering communication is only possible when using the 2,4GHz frequency band.

- About the use of wireless LAN, the Local Organizing Committee will later inform you of the conditions such as where it is permitted.

Note : Wireless LAN routers (including mobile Wi-Fi routers) cannot be used in Japan unless they have the Technical Conformity Mark (㊞).

Please note that the Local Organizing Committee will provide Wi-Fi services at each venue, and that you are recommended to utilize them.

2.8. Inquiries regarding radio frequency application

For inquiries regarding radio frequency application, please contact:

radio@2022fukuoka.com

3. Precautions for using radio equipment

Followings are notes for radio frequency application and actual use of radio equipment.

○ **Commercial radios**

- Transmission power of 1W or less is appropriate, and even in special cases, it should not exceed 5W.
- Stakeholders who use mobile phones provided by the Local Organizing Committee are recommended to use the mobile phones as they do not need to undergo the approval process.
- The frequency may be shared with the talkback system (intercom), telemetry, telecommand, small-capacity data transmission, etc.

○ **Wireless microphone / in-ear monitor (IEM)**

- Please use the wired microphone as much as possible, and only use a wireless microphones when it is really difficult to use a wired microphone.
- Avoid using wireless microphones / IEMs outdoors as much as possible.
- Use of digital wireless microphone / IEM is recommended as they are considered to be more resistant to interference.
- When your wireless microphone/IEM uses 714MHz or higher frequencies, ensure an appropriate separation distance from mobile phone base stations and spectator seats as it may interfere with the mobile phone system.
- In the TV band of 470 to 710MHz, only certain frequency channels are available for use.

For more information about Wireless microphone TV band available channels, see "6.3 Radio Equipment" in "Appendix 6 Q&A".

- Transmission power is limited to 10mW or less for analog devices and 50mW or less for digital devices.

○ **Wireless camera**


- Please use the wired cameras as much as possible, and only use a wireless camera when it is really difficult to use a wired camera.
- Use a high-performance RF filter when using frequencies below 4 GHz band as this frequency range is in high demand.
- When wireless camera uses frequencies between 2GHz-4GHz, ensure an appropriate distance from mobile phone base stations and spectator seats as it may interfere with the mobile phone system.

○ **Satellite communication**

- Regarding the satellite communications, satellites communication devices brought from overseas cannot be used during the Championships because:

- there are many satellites already being operated with detailed international coordination in East Asia, including Japan.
- in order to use satellite communications under this condition, it is necessary to make international adjustments based on ITU(International Telecommunications Union) regulations not only for the frequency but also for the orbital position, the direction of radio wave radiation, and the density of radio wave intensity.
- For both domestic and international communications, please use the services of companies already operating communication businesses in Japan. In this case, the conditions for use of satellites and frequency bands should be based on the service provided by those companies.

○ **DECT device**

- Due to the limited number of frequencies available, only the talkback system will be accepted.
- DECT devices for talkback systems that do not have the Technical Conformity Mark () cannot be used (The Technical Conformity Mark proves that it conforms to the Japanese technical regulations called J-DECT).
- Overseas DECT devices cannot be used because they use frequency bands not specified by J-DECT and do not have the functions required for use in Japan.
- For more information about DECT device, see “Section 6.3 Radio Equipment” in “Appendix 6 Q&A”.

○ **Wireless LAN and other data transmission**

- In order to protect the wireless LAN frequency for competition Timekeeping and Operation, the available channels of Wi-Fi are restricted to venues, specific locations on venues, and specific devices.
More details on these will be announced.
- Usage of radio equipment (e.g. Wi-Fi routers, wireless file transmitters, digital still cameras with Wi-Fi, wireless release triggers) that do not meet the technical regulations specified in the Japanese Radio Law are not allowed in any cases.(Section 2.6).

4. Necessary processes to use your radio equipment in Japan

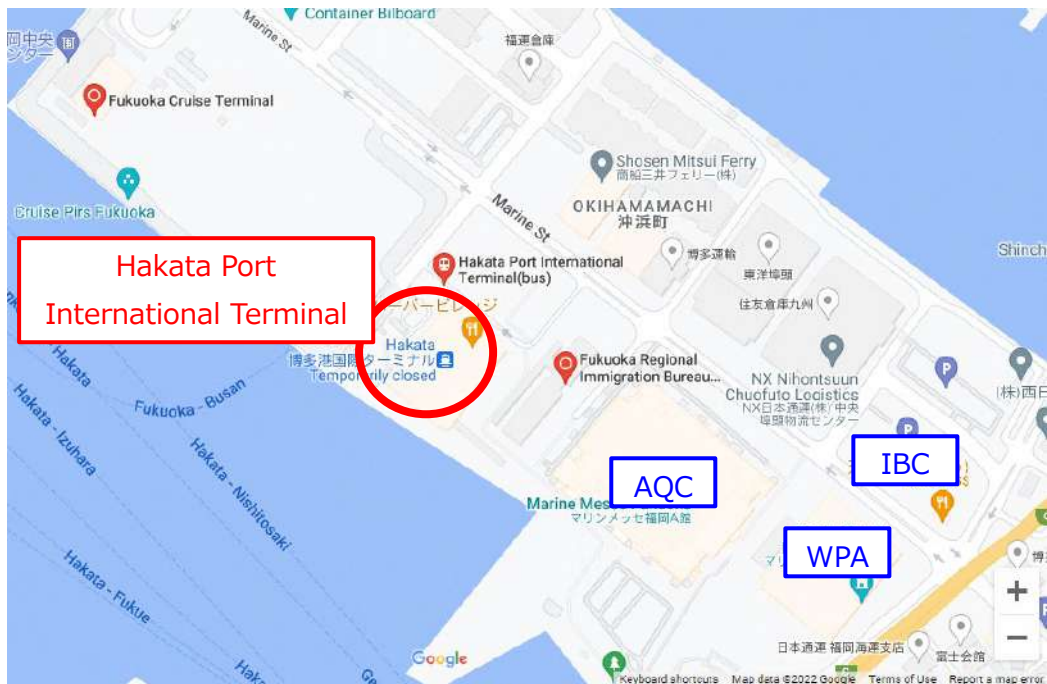
In advance of actual use of the radio equipment in Japan, applicants must go following processes and receive an "Authorization Sticker".

- 1) Book an inspection date and time
- 2) Bring in applied radio equipment to Spectrum Desk
- 3) Undergo radio frequency inspection
- 4) Receive "Authorization Sticker"
- 5) Attach "Authorization Sticker" to applied radio equipment
- 6) Bring in your radio equipment to venues
- 7) Use your radio equipment in venues

- 1) Book an inspection date and time
 - The applicant will be notified of how to schedule an inspection date and time along with the results of the radio frequency application.
Please make an appointment in advance for the smooth inspection (you may be kept waiting for a long time or asked to come back again the next day if you have no appointment.)
- 2) Bring in applied radio equipment to Spectrum Desk
 - Please come to the Spectrum Desk for inspection on your reserved date and time. If you need to change the date or time, please contact us as soon as possible.
 - Please bring all of the followings when you visit Spectrum Desk.
 - All radio equipment you have applied
 - All radio equipment necessary to emit radio waves
 - Printed result notification form or result notification number
 - Accreditation Card
 - Please make sure that someone who can operate and set up all applied radio equipment comes to the Spectrum Desk as applicant will be asked to emit radio waves from all radio equipment.
 - The Spectrum Desk is located next to the AD Center on the 3rd floor of the Hakata Port International Terminal, so it is convenient to visit the Desk when you pick up your Accreditation Card.

<Address> 14-1 Okihama-machi, Hakata-ku, Fukuoka 812-0031, Japan

<Map>



<Operation Days> July 8th, 2023 – July 25th, 2023

<Operation hours> 9:00~17:00

- For radio equipment brought into Japan from overseas, please never transmit radio waves until you bring it to the Spectrum Desk. In particular, for radio equipment that requires a new Japanese radio license, transmission of radio waves will be subject to penalties under Japanese Radio Law because the license for the your radio equipment has not been issued until you receive the “Authorization Sticker” at the Spectrum Desk.
- 3) Undergo radio frequency inspection
- The Spectrum Desk conducts inspections to verify that the radio waves emitted by the brought-in radio equipment are configured as previously notified by the Radio Frequency Desk of the LOC. Major check points are as follows:
 - Whether the center frequency is set to the notified value or not
 - Whether it fits within a defined frequency bandwidth or not
 - Whether the transmission output is the specified value or not
 - Before bringing radio equipment to Japan, be sure to set the center frequency and other settings according to the notification from Radio Frequency Desk. Also, make sure that radio equipment are working properly.
 - If, as a result of the inspection, the radio waves emitted by the radio equipment are not in accordance with the previously notified settings, corrective action can be taken on site. Follow the instructions of the staff


member and adjust the radio equipment so that the emitted radio waves are at the specified center frequency and transmission output.

- If the radio equipment cannot be set to the pre-designated value or to the value re-designated by the staff member even after adjustment, that equipment may not be brought into the venue.
- 4) Receive "Authorization Sticker"
- If the inspection results confirm that the radio waves emitted by the brought-in radio equipment are appropriate, you will receive an "Authorization Sticker".
 - For radio equipment that requires a new Japanese radio license, you will not receive an Authorization Sticker on the same day of the inspection due to final confirmation by the Japanese radio authorities. Therefore, it is not possible to bring your radio equipment to venues on the same day you visit Spectrum Desk. Once the authorities approve the application the next day or later, a staff will contact each applicant and distribute Authorization Stickers at the Spectrum Desk, so please be sure to schedule your inspections well in advance.
- 5) Attach "Authorization Sticker" to applied radio equipment
- Authorization stickers are numbered consecutively and should be attached to the designated corresponding radio equipment.
 - Authorization stickers will be checked when radio equipment are brought into venues, so please attach it to a visible location on your radio equipment.
 - If the sticker is removed by accident, please bring your radio equipment to the Spectrum Desk again and a staff will issue a new sticker.
- 6) Bring in your radio equipment to venues
- Radio equipment with authorization stickers may only be brought into venues that have been designated as places of use in a prior application. If you intend to use your radio equipment in more than one venue, please be sure to list all the venues you wish to use on your application form.
 - Radio equipment will be checked at the media gate of each venue. Please show the staff where the authorization sticker is attached during the inspection.
- 7) Use your radio equipment in venues
- Radio equipment must be turned on after entering the venue where usage is approved. When using the radio equipment at the venue, please use the same settings as you received the radio frequency inspection.
 - If you have used your radio equipment without changing the settings at the time of the radio frequency inspection and still experience communication problems, never change the frequency settings yourself, and always consult

the Spectrum Desk.

- If radio interference or other problems are caused by radio equipment that has been changed frequency settings without permission, further use of the radio equipment may be prohibited.
- In order to improve the wireless environment at the venue, the Spectrum Desk may ask you to change the frequency band you are using even during the Championships.

5. Extraordinary Application

As a general rule, Extraordinary Application cannot accept radio equipment that do not have the Technical Conformity Mark ().

*Spectrum Desk will not accept an application of radio equipment without Technical Conformity Mark (means not compliant with the technical regulations of Japanese Radio Law) because it will take a considerable amount of time to adjust the frequency bands to be used and there is no prospect of obtaining a new license with final approval from the Japanese authorities before the end of the Championships.

Please make sure to apply during the Normal Application period.

The period for accepting Extraordinary Application at Spectrum Desk is as follows:

<Application Period> July 8 - July 16, 2023

<Opening hours> 9:00 - 17:00

Appendix

1. Applicant Information (Application Form)

The input items for applicant information are as follows.

Table 1 Applicant's Information

Term	Item	Contents
1	Nationality	Applicant's Country of Residence
2	Stakeholder Group	Applicant's stakeholder Group to which the user belongs (e.g., RHB, Press)
3	Organization	Applicant's Organization Name
4	Contact Name	Applicant's Name
5	Contact Email	Applicant's E-mail Address
6	Contact Phone Number	Applicant's Phone Number

Term 1 Nationality and Term 2 Stakeholder Group are selected from the pull-down menu. If there is no applicable description, you can enter it directly.

2. Type of radio equipment (Application Form)

The application form is determined by the type of radio equipment. The following table shows each radio equipment that requires a frequency application and their corresponding radio equipment type.

Table 2 Type of radio equipment and its application form

Radio equipment	Application Form
Wireless microphone	Type A
Talkback (intercom)	
In-ear monitor system	
Handheld radios walkie-talkie	
Telemetry and tele-command	
Wireless camera (less than 50mW)	
Microwave mobile link	Type B
Microwave fixed link	
Wireless camera (over 50mW)	

3. Pull-down Menu (Application Form)

The following items can be selected from the Pull-down Menu. If there is no applicable description, you can enter it directly.

- General information sheet
 - Nationality
 - Stakeholder Group
- Type A and Type B sheet
 - Usage type
 - Start date
 - Finish date
 - Location
 - Modulation

4. How to obtain “Application Form”

The application form can be downloaded from the official website of FINA World Championships 2022 Fukuoka.

<http://www.fina-fukuoka2022.org/championships/media/>

5. Application Fee

Time Frame	Type A	Type B
Normal Application	JPY7,000-/device	JPY20,500-/device
Extraordinary Application	JPY10,500-/device	JPY30,500-/device

High-powered (over 50mW) Type A wireless cameras will be charged the Type B application fee.

6. Q&A

6.1 General Information Sheet (Application Form)

Q1: Nationality (Application Information)

How should I fill in the Nationality column of the application information?

A1:

Please fill in the name of the country or region that your organization is located in. Nationality can be selected from the pull-down menu. If there is no applicable country name, you can enter it directly.

Nationality	
Stakeholder Group	
Organization	
Contact Name	
Contact E-Mail	
Contact Phone Number	

Q2: Stakeholder Group (Application Information)

How should I fill in the Stakeholder Group column of the application information?

A2:

Please fill in the name of the category to which your organization belongs. Stakeholder Group can be selected from the pull-down menu. If there is no applicable country name, you can enter it directly.

Example:

National Federations, Press, Broadcasters (RHBs), Partner, and others...

Nationality	
Stakeholder Group	
Organization	
Contact Name	
Contact E-Mail	
Contact Phone Number	

Q3: Organization (Application Information)

How should I fill in the organization column of the application?

A3:

Please fill in the column with the federation name, company name, etc.

If your organization has the right to apply for frequencies, we recommend that you include the category name on your Accreditation Card in parentheses () after the organization name.

Example:

ABCD-Television (RHB)

Nationality	
Stakeholder Group	
Organization	
Contact Name	
Contact E-Mail	
Contact Phone Number	

6.2 Type A, Type B sheet (Application Form)

Q4: Start date, Finish date

How should I fill in the start date and finish date sections of the application?

A4: Start Date

Enter the desired start date.

It should be the date that radio wave emission will be necessary such as when installing your radio equipment.

Finish Date:

Enter the date you will no longer use your device in Japan.

The column allows you to select a representative date from the list. If the desired date is not on the list, you can enter it in directly.

[Type A Sheet]

Usage type	Start Date [yyyy-mm-dd]	Finish Date [yyyy-mm-dd]	Location	Modulation
Wireless microphone	2023-7-8	2023-7-30	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM
Talkback (Intercom)	2023-7-9	2023-7-31	Marine Messe A (Swimming/Artistic Swimming/MPC)	GFSK
Talkback (Intercom)	2023-7-10	2022-8-11	Marine Messe A (Swimming/Artistic Swimming/MPC)	GFSK
Handheld radios (walkie-talkie)	2023-7-11	2023-7-31	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM
Wireless camera(less than 50mW)	2023-7-12	2023-7-30	Marine Messe A (Swimming/Artistic Swimming/MPC)	OFDM

[Type B Sheet]

Usage type	Start Date [yyyy-mm-dd]	Finish Date [yyyy-mm-dd]	Location	Location B	Modulation
Microwave mobile link	2023-7-12	2023-7-30	Marine Messe A (Swimming/Artistic Swimming/MPC)	fukuoka tower	OFDM

Q5: Location column

How should I fill in the Location column of the application?

A5:

Select the applicable venue.

The applicable locations will be presented in the selection list of the application form. It is necessary to list the location for every event even if it is the same venue (eg. Marine Messe A (Swimming / Artistic Swimming / MPC), Closing ceremony for Championships (Marine Messe A)).

Enter the location where the receiver device will be installed in In Location B of Type B (F column).

Usage type	Start Date [yyyy-mm-dd]	Finish Date [yyyy-mm-dd]	Location	Modulation
Wireless microphone	2023-7-8	2023-7-30	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM
Talkback (Intercom)	2023-7-9	2023-7-31	Marine Messe A (Swimming/Artistic Swimming/MPC)	GFSK
Talkback (Intercom)	2023-7-10	2022-8-11	Marine Messe A (Swimming/Artistic Swimming/MPC)	GFSK
Handheld radios (walkie-talkie)	2023-7-11	2023-7-31	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM
Wireless camera(less than 50mW)	2023-7-12	2023-7-30	Marine Messe A (Swimming/Artistic Swimming/MPC)	OFDM

Usage type	Start Date [yyyy-mm-dd]	Finish Date [yyyy-mm-dd]	Location	Location B	Modulation
Microwave mobile link	2023-7-12	2023-7-30	Marine Messe A (Swimming/Artistic Swimming/MPC)	fukuoka tower	OFDM

Q6: Modulation

What should I fill in the Modulation column?

A6:

Fill in the Modulation items described in the device spec sheet, data sheet, user manual, etc.

The column allows you to select a typical modulation method from the list. If it is not in the list, you can enter it directly.

If you are unsure of what to fill in, please apply for the frequency by attaching materials such as photo copies of spec sheets, data sheets, and user manuals.

[Type A Sheet]

Usage type	Start Date [yyyy-mm-dd]	Finish Date [yyyy-mm-dd]	Location	Modulation
Wireless microphone	2023-7-8	2023-7-30	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM
Talkback (Intercom)	2023-7-9	2023-7-31	Marine Messe A (Swimming/Artistic Swimming/MPC)	GFSK
Talkback (Intercom)	2023-7-10	2022-8-11	Marine Messe A (Swimming/Artistic Swimming/MPC)	GFSK
Handheld radios (walkie-talkie)	2023-7-11	2023-7-31	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM
Wireless camera(less than 50mW)	2023-7-12	2023-7-30	Marine Messe A (Swimming/Artistic Swimming/MPC)	OFDM

[Type B Sheet]

Usage type	Start Date [yyyy-mm-dd]	Finish Date [yyyy-mm-dd]	Location	Location B	Modulation
Microwave mobile link	2023-7-12	2023-7-30	Marine Messe A (Swimming/Artistic Swimming/MPC)	fukuoka tower	OFDM

Q7 Number of Frequencies

What should I fill in the Number of Frequencies field (Type A-G column)?

A7:

If one device will transmit multiple frequencies, such as the Talkback system, enter the number of frequencies that the same device will transmit. Please refer to "3-11 Device that uses multiple frequencies" for how to describe multiple frequencies.

[Type A Sheet]

Location	Modulation	Number of Frequencies	Preferred Center Transmit Frequency(MHz)	
			TX	RX
Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	-	470.4000	-
Marine Messe A (Swimming/Artistic Swimming/MPC)	GFSK	1	1895.6160	1895.6160
Marine Messe A (Swimming/Artistic Swimming/MPC)	GFSK	1	1895.6160	1895.6160
Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	-	422.0625	-
Marine Messe A (Swimming/Artistic Swimming/MPC)	OFDM	-	5200.0000	-

Q8: Model (Type A - F column, Type B -G column)

How should I fill in the application for Model?

A8:

Enter the model name of the radio equipment that will be used.

The model name may indicate available Band or Region specifications. We recommend including all the information, including suffixes, if any.

Problems such as the inability to set the assigned frequency may occur if there are blanks, omissions, or typographical errors.

If you are not sure how to fill in this section, we recommend that you submit the application with a photo attachment of the part of your device where the model name and model number are indicated.

The model name and model number of handheld radio walkie-talkie may be displayed where the batteries are located.

If the model is changed or the frequency is changed after the results have been notified, the radio frequency application process must be performed again and will be treated as a new application.

[Type A Sheet]

Maximum transmit power(W)	Number of Units /Transmitters	Manufacturer	Model	Applicant's Remarks
0.01	8	Sennheiser	SK300 G3	
0.04	5	HOLLYLAND	SOLIDCOM T1000	Combined A-1 Certification number : 211-201015
0.04	1	HOLLYLAND	SOLIDCOM T1000-Base	Combined A-2 Certification number : 211-201015
0.01	2	icom	IC-4110	20MHz Low Power CR Certification number : 001-P00265
0.05	1	Hollyland	Mars400S	Certification number : 214-106491

[Type B Sheet]

Antenna Half Power Angle (degrees)	Manufacturer	Model	Applicant's Remarks
-	Ikegami	xxxx	

Q9: Applicant's Remarks

What should I fill in the Applicant's Remarks section?

A9:

Please enter information such as the device configuration when multiple devices use a combination of frequencies (3-7 sheets: combined use), special use when devices use multiple frequencies (3-10 use multiple frequencies), purpose and special operation (FHSS: Frequency Hopping Spread Spectrum), license number if you have a license in Japan, certification number conforming to the Technical Conformity Mark (displayed near the approval seal (☞)) Etc..

[Type A Sheet]

Maximum transmit power(W)	Number of Units /Transmitters	Manufacturer	Model	Applicant's Remarks
0.01	8	Sennheiser	SK300 G3	
0.04	5	HOLLYLAND	SOLIDCOM T100	Combined A-1 Certification number : 211-201015
0.04	1	HOLLYLAND	SOLIDCOM T100 - Base	Combined A-2 Certification number : 211-201015
0.01	2	icom	IC-4110	420MHz Low Power CR Certification number : 001-P00265
0.05	1	Hollyland	Mars400S	Certification number : 214-106491

[Type B Sheet]

Antenna Half Power Angle (degrees)	Manufacturer	Model	Applicant's Remarks
-	Ikegami	xxxx	

Q10: Combined use

How should I fill in the application for handheld radios, in-ear monitor system, Talkback (Intercom), wireless camera and camera controller, etc. when using multiple devices and multiple frequencies in combination?

A10:

Please fill in consecutive lines to make sure it is clear that they will be used in combination, and indicate in "Applicant's Remarks" that they will be used in combination.

Example: Talkback System A device 1 (Combined A-1), Talkback System A device 2 (Combined A-2)

Also, if there are restrictions on the Transmit Frequency and separation frequencies, please describe the conditions in "Applicant's Remarks".

[Type A Sheet]

Usage type	Start Date [yyyy-mm-dd]	Finish Date [yyyy-mm-dd]	Location	Modulation	Number of Frequencies	Preferred Center Transmit Frequency (MHz)		Adjustable Frequency Band (MHz) (Unusable Range)		Number of Units / Transmitters	Manufacturer	Model	Applicant's Remarks
						TX	RX	From	To				
Talkback (Intercom)	2022-05-13	2022-05-29	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	3	455.05625	467.35625	420	470	1	Taiot	TB710	Combined A-1 Frequency 1 (Separation > 10MHz)
Talkback (Intercom)	2022-05-13	2022-05-29	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	3	455.19375	467.50625	420	470	1	Taiot	TB710	Combined A-1 Frequency 2 (Separation > 10MHz)
Talkback (Intercom)	2022-05-13	2022-05-29	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	3	456.50625	456.50625	420	470	1	Taiot	TB710	Combined A-1 Frequency 3 (Separation > 10MHz)
Handheld radios (walkie-talkie)	2022-05-13	2022-05-29	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	2	467.50625	455.19375	403	470	25	Motorola	GP360	Combined A-2 Frequency 1
Handheld radios (walkie-talkie)	2022-05-13	2022-05-29	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	2	467.35625	455.05625	403	470	25	Motorola	GP360	Combined A-2 Frequency 2

Q11: Use of multiple frequencies

How should I fill in the form if I need to use multiple frequencies with one device (such as Talkback system)?

A11:

Please use one line for each desired frequency.

(Example: If you need to use 3 frequencies with one device, use 3 consecutive lines.

1st line: 469.600, 2nd line: 458.675, Line 3: 457.425)

Enter the number of frequencies used by one device in "Number of Frequencies".

In addition, please indicate in "Applicant's Remarks" that the frequency is used by the same device.

Example: Device 1 frequency 1, Device 1 frequency 2, Device 1 frequency 3

[Type A Sheet]

Usage type	Start Date [yyyy-mm-dd]	Finish Date [yyyy-mm-dd]	Location	Modulation	Number of Frequencies	Preferred Center Transmit Frequency (MHz)		Adjustable Frequency Band (Tunable Range) (MHz) -Transmit		. . . . .	Number of Units /Transmitters	Manufacturer	Model	Applicant's Remarks
						TX	RX	From	To					
Talkback (Intercom)	2022-05-13	2022-05-29	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	3	469.600	462.075	403	470	. . . . .	6	Motorola	CP200	Device 1 Frequency 1
Talkback (Intercom)	2022-05-13	2022-05-29	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	3	458.675	454.625	403	470	. . . . .	6	Motorola	CP200	Device 1 Frequency 2
Talkback (Intercom)	2022-05-13	2022-05-29	Marine Messe A (Swimming/Artistic Swimming/MPC)	FM	3	457.425	450.825	403	470	. . . . .	6	Motorola	CP200	Device 1 Frequency 3

Q12: Number of Units /Transmitters in Type B sheet

Type B sheet does not have a column for the number of Units/Transmitters, so what should I do if I want to use multiple devices?

A12:

Please enter the number of devices you want to use in the Applicant's Remarks.

Example: Number of Units: 5 units

6.3 Radio Equipment

- **Handheld Radios walkie-talkie**

Q13:

Are there any restrictions on the use of Handheld Radios walkie-talkie?

A13:

Handheld Radios walkie-talkie has a limited transmission output value and a limited number of usable frequencies.

Therefore, use of the device may not be permitted or frequency different from the one you originally applied may be assigned.

We recommend that you apply for frequencies by attaching a user guide or data sheet of your device to clarify the frequencies that can be set.

If the permitted frequency is not set, it will fail the inspection and you will not be able to use it during the Championships, so it is recommended to check in advance whether the permitted frequency can be set correctly.

Convenience radios (licenses, registrations) that are permitted to be used in Japan are permitted under conditions that allow interference because they share the same frequency.

For IP wireless handled-radio, there are no restrictions on the use of frequencies, but you are required to submit frequency application because you need to receive an "Authorization Sticker" and attach it to your device.

.

PHS Enterprise radios cannot be used because they interfere with the Talkback system.

- **DECT device**

Q14:

Are DECT device with overseas specifications (EU, US, etc.) permitted?

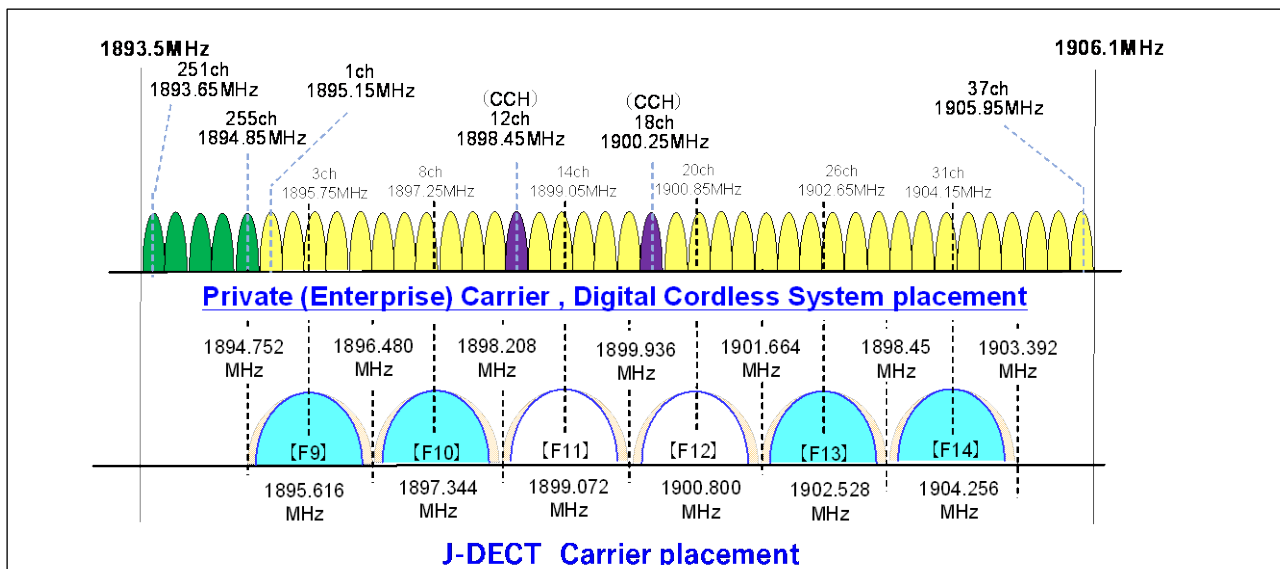
A14:

DECT device with overseas specifications cannot be used in Japan because they use frequencies different from those of Japanese specifications (called J-DECT) and are not installed with the necessary functions.

Devices that can apply for frequencies must comply with the J-DECT standard and be certified as a radio equipment that confirms to the technical regulations conformity certification in Japan.

We recommend writing the certification number (usually displayed on the right side of the Technical Conformity Mark (㉞) such as the technical regulations conformity certification of the device) on Applicant's Remarks or attach a photo of the certification number.

In principle, the use of J-DECT frequencies other than the Talkback system is not permitted due to the limited number of frequencies that can be used.



Frequency Band	Countries & Details
1880 – 1900 MHz	Europe, South Africa, much of Asia, Hong Kong, Australia, and New Zealand (10 channels)
1786 – 1792 MHz	Korea (3 channels only)
1880 – 1895 MHz	Taiwan (8 channels)
1893 – 1906 MHz	Japan (J-DECT)
1910 – 1920 MHz	Brazil (10 channels)
1910 – 1930 MHz	Much of Latin America excluding Brazil
1920 – 1930 MHz	USA & Canada

● **Wireless Microphone**

Q15:

Which channel of the TV band can I apply for Wireless microphone?

A15:

See below for the TV band frequency channels applicable to wireless microphones at each venue. Values in each column describes the usable frequency range.

	MHz	13ch	14ch	15ch	16ch	17ch	18ch	19ch	20ch	21ch	22ch
Marine Messe A				483-487				507-511			
Marine Messe B				483-487				507-511			
Fukuoka International Center				483-487				507-511			
Seaside Momochi Area											
International Broadcasting Center				483-487				507-511			
Fukuoka Boartrace Stadium				483-487				507-511			

	MHz	23ch	24ch	25ch	26ch	27ch	28ch	29ch	30ch	31ch	32ch
Marine Messe A											
Marine Messe B											
Fukuoka International Center											
Seaside Momochi Area											
International Broadcasting Center											
Fukuoka Boartrace Stadium											

	MHz	33ch	34ch	35ch	36ch	37ch	38ch	39ch	40ch	41ch	42ch
Marine Messe A						615-619		627-630			
Marine Messe B						615-619		627-630			
Fukuoka International Center						615-619		627-630			
Seaside Momochi Area						615-619		627-630			
International Broadcasting Center						615-619		627-630			
Fukuoka Boartrace Stadium						615-619		627-630			

	MHz	43ch	44ch	45ch	46ch	47ch	48ch	49ch	50ch	51ch	52ch
Marine Messe A						675-680	680-685			699-703	
Marine Messe B						675-680	680-685			699-703	
Fukuoka International Center						675-680	680-685			699-703	
Seaside Momochi Area						675-680	680-685			699-703	
International Broadcasting Center						675-680	680-686	686-690		699-703	
Fukuoka Boartrace Stadium						675-680	680-685			699-703	

● **Wireless LAN band**

Q16: Wi-Fi channel

What Wi-Fi channels are available?

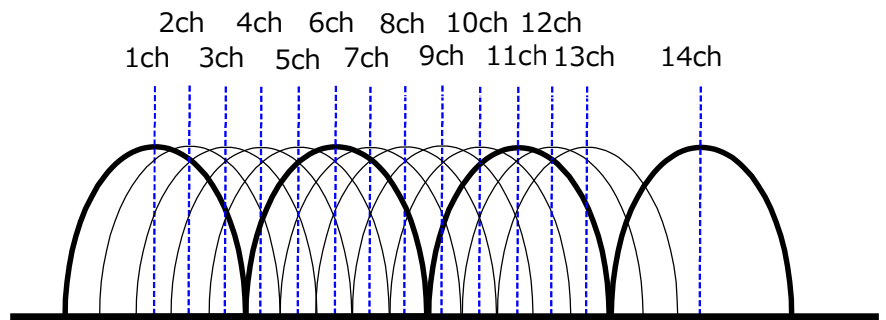
A16:

The following channels are available for Wi-Fi use in Japan. Only devices (Wi-Fi router: use the master unit function) carrying the Technical Conformity Mark (㉿) are allowed to be used inside the country (Japan).

Please note that not all of the following channels are available in all venues and it may be restricted by device, channel, location, etc.

[2.4GHz band: indoor/Outdoor] Center frequency

- 1ch : 2412MHz
- 2ch : 2417MHz
- 3ch : 2422MHz
- 4ch : 2427MHz
- 5ch : 2432MHz
- 6ch : 2437MHz
- 7ch : 2442MHz
- 8ch : 2447MHz
- 9ch : 2452MHz
- 10ch : 2457MHz
- 11ch : 2462MHz
- 12ch : 2467MHz
- 13ch : 2472MHz
- 14ch : 2484MHz



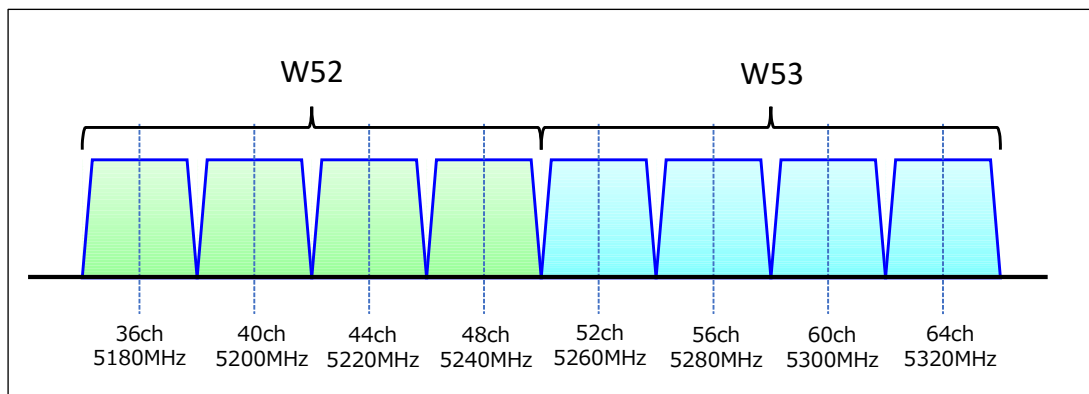
[W52 band: indoor only (In principle)]

- Center frequency
 - 36ch : 5180MHz
 - 40ch : 5200MHz
 - 44ch : 5220MHz
 - 48ch : 5240MHz

[W53 band: indoor only]

DFS (Dynamic Frequency Selection) and TPC (Transmit Power Control) function must be implemented.

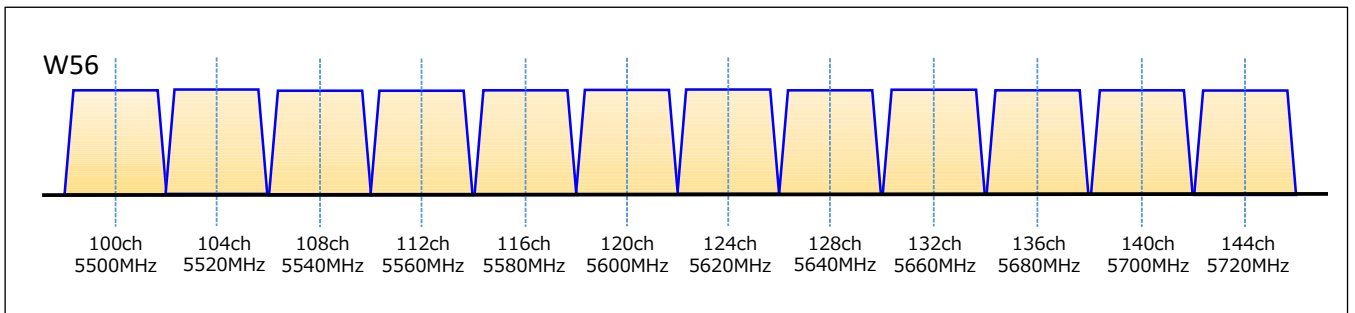
- Center frequency
 - 52ch : 5260MHz
 - 56ch : 5280MHz
 - 60ch : 5300MHz
 - 64ch : 5320MHz



[W56 band : indoor/outdoor]

DFS (Dynamic Frequency Selection) and TPC (Transmit Power Control) function must be implemented.

- Center frequency
 - 100ch : 5500MHz
 - 104ch : 5520MHz
 - 108ch : 5540MHz
 - 112ch : 5560MHz
 - 116ch : 5580MHz
 - 120ch : 5600MHz
 - 124ch : 5620MHz
 - 128ch : 5640MHz
 - 132ch : 5660MHz
 - 136ch : 5680MHz
 - 140ch : 5700MHz
 - 144ch : 5720MHz



6.4 Application From file

Q17: File name

Do I need to change the Application Form File name?

A17:

We recommend that you add the organization name in the beginning of the file name.

Example:

ABCD-Radio_Frequency_Application_Form_Fukuoka_v2.xlsx

If the file needs to be updated for correction or in order to fill in additional information, it is recommended to add a 2-digit number at the end of the file name.

Example:

ABCD-Radio_Frequency_Application_Form_Fukuoka_v2-**01**.xlsx

Q18: When entry field is insufficient

What should I do if the radio frequency application field is insufficient (not enough)?

A18:

Please use the Sheet by copy and pasting the line for entry in the Sheet, and add the required line.

The image contains two screenshots of an Excel spreadsheet. The top screenshot shows a spreadsheet with a table of data. A row is highlighted in green, and a blue arrow points from a box labeled 'Copy' to this row. The bottom screenshot shows the same spreadsheet, but the highlighted row has been moved to a new position, and a blue arrow points from a box labeled 'Paste' to the new position. The spreadsheet has a header row with columns for 'Type A', 'Model No.', 'Start Date', 'Finish Date', 'Location', 'Model No.', 'Number of Frequencies', 'Proposed Center Frequency (MHz)', 'Bandwidth (MHz)', 'Power (W)', 'EIRP (dBm)', 'Class', 'Channel No.', 'Channel Bandwidth (MHz)', 'Maximum Power Spectral Density (dBm/MHz)', 'Number of Channels', 'Waveform', 'Modem', and 'Application No.'. The data row below the header contains the following values: 'Wireless personal Area Net (WPAN)', '2023-1-01', '2023-1-01', 'Some House A (Dorming, Office, Learning, etc.)', 'OP34', '-', '823.000', '1', '0.05', '0.05', '-', '-', '-', '2023', '0.05', 'FSS/SSB', 'BPSK', '202301', 'Application Number: 001'.

6.5 Others

Q19: Radio frequency application for Japanese radio license holders

Do I need to apply for frequency usage even if I have a Japanese radio license?

A19:

Even if you already have a Japanese radio license, authorization from Local Organizing Committee is required to use radio equipment at The 20th FINA World Championships 2022 Fukuoka and Masters Championships ("FINA World Championships 2022 Fukuoka") venues.

Please fill in the license number on Applicant's Remarks and apply for frequency use.

Q20: Application for wireless devices that use the wireless LAN band

How should I apply for a wireless device that uses the wireless LAN band?

A20:

Wireless devices that use the wireless LAN master function cannot be used because the wireless LAN band has been reserved for use for Competition Timekeeping and Championships Operation.

<Devices prohibited in all venues>

All of the following devices that use the Wi-Fi band (2.4GHz band, 5GHz band (W52, W53, W56)): Wireless Microphone, Handheld-radio, Talkback system, Video file transmitter, Drone, etc.

Q21: Radio equipment that use RFID bands (920MHz)

How can I apply for a radio equipment that uses RFID bands?

A21:

Radio equipment that uses the RFID band (915 MHz to 930 MHz) is not allowed because that frequency must be reserved for Competition Timekeeping and Championships Operation.

In addition, since the frequency of RFID bands overseas are different, overseas RFID devices cannot be used in Japan.

Q22: Wireless Camera

Can I apply for frequency with any type of Wireless camera?

A22:

Wireless cameras that use the Wireless LAN frequency cannot be applied for because they will affect the wireless LAN band used for Competition Timekeeping and Championships Operation.

If you need to use a wireless camera, it is recommended to prepare a wireless camera that uses a mobile phone service.

Wireless cameras other than those using mobile phone service have restrictions on usable frequencies, outputs, bandwidths, out-of-band emission, etc., and it is necessary to submit data such as spectrum diagrams and spec sheets. Also, depending on the specifications of the device, permission may not be granted.

Q23: Extraordinary Application (radio equipment that can be applied during extraordinary application period)

Is there anything I should be aware of when applying during the Extraordinary Application period?

A23:

Of the applications for the Extraordinary Application period, there is no guarantee that radio equipment requiring a new radio license in Japan (excluding wireless microphones) will be ready for use by the desired time, as it takes certain time to obtain a license.

In addition, permission may not be granted.

If you want to be sure of the use of your radio equipment during the Championships, we recommend that you apply with a 'Normal Application'.

In addition, even radio equipment that do not require a radio license in Japan may not be permitted due to the limited frequencies that can be assigned.

Q24 : What is the Technical Regulations Conformity Certification System?

A24 :

In principle, the establishment of radio station must be licensed in order to prevent interference and interference of wireless communications and to ensure the efficient use of radio waves, which are an effective and rare resource. In the license application procedure, inspections are conducted to confirm that the radio equipment used at the relevant radio station complies with the technical standards.

For radio equipment that have obtained standard certification based on the Japanese Radio Law and display the Technical Conformity Mark specified by the Ordinance of the MIC (Ministry of Internal Affairs and Communications), there are special measures such as omitting the inspection required during the license application procedure.

Q25: What is the Technical Conformity Mark ()?

A25:

The Technical Conformity Mark is there as proof that the radio equipment conforms to the technical regulations specified in the Japanese Radio Law.

NB: When applying for a new license, the procedure is greatly simplified if the Technical Conformity Mark is already affixed.

Q26: Where is the Technical Conformity Mark () affixed?

A26:

In most cases, it is displayed in the identification plate that describes the model name and manufacturer of the radio equipment.

As to wireless LANs, the Mark is printed on the bottom face if it is stationary-type equipment, and it is printed in the identification plate if it is card-type.

Wireless devices such as handheld wireless transceivers that can remove the built-in battery, the Mark can be found on the part where the built-in battery is removed.